Management of Red Flag Chemicals for School Laboratories

A Series of Best Management Practices

The goals to fabricating a list of red flag chemicals are to familiarize schools with the dangers of stored chemicals and to start thinking of alternatives to the curriculum that require their purchase.

Red flag chemicals
Red flag chemicals are those that demonstrate serious risks if not handled properly. Some examples might include chemicals that are fire or explosion hazards. Some chemicals on your list might have more than one main risk factor, such as being a carcinogen and also flammable.

Chemical inventory
Chemicals should be listed, but not stored, in alphabetical order. A code can be used to identify each hazard, and placed in front of the chemical for example, H=Hazardous, T=Toxic.

Minimizing human and environmental exposure
Try to substitute a less hazardous chemical for use in experiments. For chemicals that have no substitutes, use a smaller quantity during experiments, use microscale chemistry, or perform a classroom demonstration.

Combining a chemical inventory and red flag list
If your school has already conducted a chemical inventory, another column can be added to list the risks of those "red flagged chemicals". In this column, list your codes for the specific risks. Then post your chemical inventory in storage areas where the chemicals are located.

Examples of Red Flag Chemicals

- Explosion/Fire Hazards: benzene, nitrates
- Carcinogenic: silver, asbestos
- Toxics: mercury, nickel
- Reactive: bromine, ammonium hydroxide
- Hazardous- regulations exist to properly discard of this waste: phosphorus, pesticides, barium

New Hampshire Pollution Prevention in Schools Project
http://www.des.nh.gov/nhppp/Schools/ or call (603) 271-0878
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